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AMENDMENTS TO THE CLAIMS

- 1. (Currently Amended) A composition comprising a purified DNA having a *Bta1* [[oligo]]nucleotide sequence selected from the group consisting of SEQ ID NO: 44 and SEQ ID NO: 49.
- 2. (Currently Amended) <u>Purified</u> RNA transcribed from the DNA of Claim 1.
- 3. (Withdrawn) Protein translated from the RNA of Claim 2.
- 4. (Withdrawn) Antibodies produced from the protein of Claim 3.
- 5. (Original) A vector comprising the DNA of Claim 1.
- 6. (Original) A host cell comprising the vector of Claim 5.
- 7. (Original) The host cell of Claim 6, wherein said host cell is *E. coli*.
- 8. (Original) The host cell of Claim 6, wherein said host cell is R. sphaeroides.
- 9. (Original) The host cell of Claim 6, wherein said host cell is A. thaliana.
- 10. (Original) Transgenic plants comprising the vector of Claim 5.
- 11. (Previously Presented) A composition comprising a purified DNA encoding a *Bta1* protein having the amino acid sequence selected from the group consisting of SEQ ID NO: 45 and SEQ ID NO: 50.
- 12. (Currently Amended) Purified RNA transcribed from the DNA of Claim 11.
- 13. (Withdrawn) Protein translated from the RNA of Claim 12.
- 14. (Withdrawn) Antibodies produced from the protein of Claim 13.
- 15. (Original) A vector comprising the DNA of Claim 11.

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- 16. (Currently Amended) A host cell comprising the vector of Claim [[5]] 15.
- 17. (Original) The host cell of Claim 16, wherein said host cell is E. coli.
- 18. (Original) The host cell of Claim 16, wherein said host cell is R. sphaeroides.
- 19. (Original) The host cell of Claim 16, wherein said host cell is A. thaliana.
- 20. (Original) Transgenic plants comprising the vector of Claim 15.
- 21. (Currently Amended) A purified *Bta1* nucleic acid that specifically hybridizes to the complement of a sequence selected from the group consisting of SEQ ID NO:44, and SEQ ID NO:49, under highly stringent conditions in 5X SSPE, 1% SDS, 5X Denhardt's reagent and 100 µg/ml denatured salmon sperm DNA at 68°C overnight, followed by a washing in a solution comprising 0.1X SSPE and 0.1% SDS at 68°C, wherein said nucleic acid encodes a protein <u>capable of synthesizing with DGTS synthetic activity</u>.
- 22. (Original) A vector comprising the nucleic acid of Claim 21.
- 23. (Original) A host cell comprising the vector of Claim 22.
- 24. (Original) A transgenic plant comprising the vector of Claim 22.
- 25. (Withdrawn) A protein encoded by the nucleic acid of Claim 21.
- 26. (Currently Amended) A purified *Bta1* nucleic acid comprising a sequence that is at least 95% identical to SEQ ID NO:44, or a sequence that is at least 95% identical to SEQ ID NO:49, wherein said sequence encodes a protein <u>capable of synthesizing</u> with DGTS synthetic activity.
- 27. (Original) A vector comprising the nucleic acid of Claim 26.
- 28. (Original) A host cell comprising the vector of Claim 27.
- 29. (Original) A transgenic plant comprising the vector of Claim 27.

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30. (Withdrawn) A protein encoded by the nucleic acid of Claim 26.